CISCO-1656

ABSTRACT OF THE DISCLOSURE

A group of network devices, such as Ethernet switches, are logically configured as a single cluster, with one commander device and one or more member devices. Each

5   network device in the cluster contains an embedded HTML server that facilitates configuration and management of the network device via a management station running a Web browser. Each device in the cluster is identified by a unique Universal Resource Locator ("URL"). However, only the cluster commander is required to have a public IP address. The cluster commander automatically assigns private IP addresses to the

10   other devices in the cluster. Network devices in the cluster constantly monitor network traffic on all their ports to detect conflicts between the automatically assigned IP addresses and the IP addresses of network devices outside of the cluster. When a conflict is detected, the cluster commander assigns a different private IP address to the cluster network device that caused the conflict. The process of detecting and

15   correcting IP address conflicts continues continuously to enable the cluster network devices to react automatically to network configuration changes.